Modular Reconfigurable C4I Interface [MRCI]

Informal Technical Interchange (ITI)

and

Pre-Test Readiness Review (PTRR)

Minutes

18 December 1996

Prepared for:

Naval Command, Control and Ocean Surveillance Center (NCCOSC) Research, Development, Test and Evaluation (RDT&E) Division (NRaD) Systems Engineering Branch, (Code 841) San Diego, CA 92152-5410

and

Defense Modeling and Simulation Office (DMSO) 1901 N. Beauregard St. Suite 504 Alexandria, VA 22311

Prepared by:

Science Applications International Corporation Advanced Programs and Experimental Systems Office Defense Analyses Group 1710 Goodridge Drive McLean, VA 22102

Under:

Contract N66001-96-D-8607 D.O. 0012 CDRL Item A003

Meeting Minutes Modular Reconfigurable C4I Interface (MRCI) 18 December 1996 SAIC, McLean, VA

1. Purpose

The Informal Technical Interchange and Pre-Test Readiness Review was conducted on 18 December 1996 at SAIC in McLean, Virginia. The purpose of the meeting was to review recent SAIC / MRCI activities, message sets, mission threads, translator implementation, communications representation in SOM's, MRCI software reusability, and current test schedules and assessment activities.

2. Discussions

A. The meeting began with the welcome and introduction from Mark Cosby and John Park of SAIC. John then presented a list of recent activities by SAIC related to MRCI development. These activities included:

Participated in STOW CT-4 teleconference to discuss development issues for the STOW RTI A which resulted in decision to postpone CT-4 until Dec 16-20.

- **3 Dec.** Attended Orlando meeting of HLA C2 IPT to discuss the objectives and issues of the HLA C2 experiment hosted in the JSIMS JPO Conference room. Discussed SOM/FOM development of NASM/AP and EAGLE. Established Scenario Working Group scheduled to meet on Dec 18, in IDA facility.
- **4 Dec.** Met with Joe Lacetera, MITRE, CECOM, Ft. Monmouth N.J. Discussed design for communications degradation of the MRCI. Presented and discussed the Communications Effects Server's (CES) concept of operation.
- 11 Dec. Traveled to Burlington Mass. for Integration Test of MRCI with ARSAF.
- **12 Dec.** Attended HLA OMT Technical Exchange meeting and discussed issues with SOM/FOM representation.
- **16 Dec.** Traveled to Ft. Leavenworth to Test MRCI for STOW CT-4.
- B. Dr. Michael Hieb of SAIC then gave a brief review of message sets including:
 - Air/CTAPS [USMTF]
 - Ground/MCS [USMTF]
 - Ground/AFATDS Fire Support [USMTF and TACFIRE
- C. Dr. Hieb then discussed three key mission threads, including:

AFSAF-to-AWOC-to-CTAPS

ARSAF Company Commander Command Entity-to-MCS ARSAF Fire Support Command Entity to AFATDS

- D. Mike Hieb and Mark Cosby then discussed the translator implementation including:
 - Overview of Operation and Initialization
 - Protocol Table Generation
 - Uniform Message Structure of Protocol Tables
 - Parsers
 - Mapping File Syntax
 - Example of USMTF to CCSIL Mapping
- E. Aaron Steigerwald and William Silva of SAIC then discussed the SOM's communications representation in the HLA. They also presented the concept of operations and basic design of the CESS (Communications Effects Server System) and Communications module within the MRCI. This system introduces real-world communications effects to C4I-SAF training simulations.

Concerns about excessive message latency on the RTI were answered by a Maximum Latency Time Matrix. The CESS provides:

- Communications Object comparisons to model basic communications.
- A Latency Time Interaction instructing the MRCI of the exact times to pass a message to the C4I system.
- A Maximum Latency Time Matrix interaction that provides the MRCI with a maximum wait time for passing messages on to the C4I system.
- F. Mike Hieb and Mark Cosby then discussed the effects of different federations and RTI's on MRCI reusability.
- G. Mark Cosby discussed the current test schedules and assessment activities, including:
 - Alignment with STOW
 - Alignment with HLA C2
 - MRCI Assessment Schedule [Multiple Constraint Version]
- H. The meeting adjourned after a discussion of the MRCI master activity schedule.

ATTACHMENT:

1. Informal Technical Interchange Agenda